Amendments to the Claims

The listing of claims will replace all prior versions, and listings of claims in the application.

1-84. (canceled)

85. (currently amended) A method for inducing autoantibodies against a pathogenic self-protein in a subject, said method comprising:

administering to the subject an analog of the pathogenic self-protein made by molecular biological means, wherein said analog is made by substituting one or more peptide fragments in the pathogenic self-protein with a corresponding number of immunodominant foreign T-cell epitopes such that the <u>tertiary structure of the pathogenic self-protein is essentially preserved such that said analog induces an antibody response as evidenced by antibody binding to the unmodified self-protein;</u>

wherein said immunodominant foreign T-cell epitopes elicit a T-cell response in multiple MHC-haplotypes; and

wherein autoantibodies against said pathogenic self-protein are generated in a heterogeneous MHC-population.

86. (currently amended) The method of claim 85, wherein said immunodominant foreign T-cell epitopes are inserted so as to preserve N-terminal and C-terminal flanking regions of amino acid sequences from the original pathogenic self-protein on both sides of the T-cell epitope.

- 87. (previously presented) The method of claim 85, wherein the immunodominant foreign T-cell epitopes originate from tetanus toxoid or diptheria toxoid.
- 88. (withdrawn) An autovaccine against pathogenic self-proteins in humans or animals comprising:

an analog of a pathogenic self-protein made by substituting one or more peptide fragments in the pathogenic self-protein with a corresponding number of immunodominant foreign T-cell epitopes such that the tertiary structure of the pathogenic self-protein is essentially preserved; wherein said immunodominant foreign T-cell epitopes elicit a T-cell response in multiple MHC-haplotypes; and

a pharmaceutically acceptable adjuvant.

- 89. (withdrawn) The autovaccine of claim 88, wherein the pharmaceutically acceptable adjuvant is selected from the group consisting of calcium phosphate, saponin, quil A and biodegradable polymers.
- 90. (withdrawn) The autovaccine of claim 88, wherein the pathogenic selfprotein analog is present in the form of a fusion protein with an immunologically active cytokine.

- 91. (withdrawn) The autovaccine of claim 90, wherein the immunologically active cytokine is selected from the group consisting of GM-CSF and interleukin 2.
- 92. (withdrawn) The autovaccine of claim 88, wherein the pathogenic self-protein is TNF α or γ -interferon.
- 93. (withdrawn) A method for the treatment of cachexia comprising administration of an effective amount of the autovaccine of claim 92.
- 94. (withdrawn) The autovaccine of claim 88, wherein the pathogenic self-protein is IgE.
- 95. (withdrawn) A method for the treatment of allergy comprising administration of an effective amount of the autovaccine of claim 94.
- 96. (withdrawn) The autovaccine of claim 88, wherein the pathogenic self-protein is $TNF\alpha$, $TNF\beta$ or interleukin 1.
- 97. (withdrawn) A method for the treatment of chronic inflammatory diseases comprising administration of an effective amount of the autovaccine of claim 88.

- 98. (withdrawn) A method for the treatment of rheumatoid arthritis or inflammatory bowel disease comprising administration of an effective amount of the autovaccine of claim 88.
- 99. (withdrawn) The autovaccine of claim 88, wherein the pathogenic self-protein is $TNF\alpha$.
- 100. (withdrawn) A method for the treatment of diabetes mellitus comprising administration of an effective amount of the autovaccine of claim 99.
- 101. (previously presented) The method of claim 85, wherein the pathogenic self-protein is selected from the group consisting of TNF α , TNF β , interleukin 1, γ -interferon and IgE.